



**[Billing Code 4140-01-P]**

**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**National Institutes of Health**

**Government-Owned Inventions; Availability for Licensing**

**AGENCY:** National Institutes of Health, HHS.

**ACTION:** Notice.

**SUMMARY:** The invention listed below is owned by an agency of the U.S.

Government and is available for licensing to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

**FOR FURTHER INFORMATION CONTACT:** Yogikala Prabhu, Ph.D., 301-761-7789; prabhuyo@niaid.nih.gov. Licensing information and copies of the patent applications listed below may be obtained by communicating with the indicated licensing contact at the Technology Transfer and Intellectual Property Office, National Institute of Allergy and Infectious Diseases, 5601 Fishers Lane, Rockville, MD, 20852; tel. 301-496-2644. A signed Confidential Disclosure Agreement will be required to receive copies of unpublished patent applications.

**SUPPLEMENTARY INFORMATION:** Technology description follows.

**A New Class of Immunomodulatory Drugs for Multiple Sclerosis**

**Description of Technology:**

Multiple sclerosis (MS) is an autoimmune disease caused by activated autoimmune T lymphocytes in patients resulting in inflammatory demyelination in the central nervous

system. Current treatments are focused on functional control of these activated autoimmune T cells, but these treatments are non-specific T cell inhibitors and have serious, sometimes fatal side effects. A specific therapy aimed at eliminating these autoimmune T cells through restimulation-induced cell death (RICD) could cure the disease and overcome the fatal side effects of current therapies. NIAID inventors have identified a multi-valent tolerogen (MMPt), which can specifically elicit RICD of the activated, disease causing autoimmune T cells without compromising the general T cell-dependent immunity in the host. Animal studies have demonstrated that MMPt exerts robust therapeutic effects on both monophasic as well as relapsing-remitting type of the disease, indicating its medical applicability for treating MS patients with active disease. NIAID is seeking partners to develop this multi-valent peptide to improve its efficacy for use in clinical trials.

This technology is available for licensing for commercial development in accordance with 35 U.S.C. § 209 and 37 CFR Part 404, as well as for further development and evaluation under a research collaboration.

**Potential Commercial Applications:**

- Therapeutics

**Competitive Advantages:**

- Tolerogen induced elimination of activated autoimmune T cells will overcome the fatal side effects of current therapies
- Treatment of all types of MS patients

**Development Stage:**

- Preclinical (In vitro and in vivo animal studies)

**Inventors:** Dr. Michael J. Lenardo (NIAID), Dr. Lixin Zheng (NIAID), Dr. Jian Li (NIAID), Dr. Jae Lee (NIAID), and Dr. Wei Lu (NIAID).

**Intellectual Property:** HHS Reference No. E-064-2015, U.S. Provisional Patent Application Numbers: 62/130,285 filed March 9, 2015 and 62/219,851 filed September 17, 2015, and US PCT application PCT/US2016/021571 filed on March 9, 2016. Entered National Stage filing in US, EU, Canada, and Australia.

**Licensing Contact:** Yogikala Prabhu, Ph.D., 301-761-7789; prabhuyo@niaid.nih.gov.

**Collaborative Research Opportunity:** The National Institute of Allergy and Infectious Diseases is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate or commercialize the MMPT peptide to improve its efficacy for use in clinical trials.

For collaboration opportunities, please contact Yogikala Prabhu, Ph.D., 301-761-7789; prabhuyo@niaid.nih.gov.

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